

## **ABSTRACT**

### **REGULATION OF CCR3 EXPRESSION**

A method of regulating CCR3 expression by transcriptional and mRNA control. In one embodiment, regulation occurs in a non-promoter, regulatory region of the CCR3 gene, such as untranslated exons 1, 2, and/or 3. This type of regulation has a preferential effect on eosinophilic cells; such selectivity advantageously produces less deleterious side effects when administered in a pharmaceutical preparation. Regulation of CCR3 expression by promoter targeting also presents a method to reduce CCR3 expression in a cell-specific or nonspecific manner. Other types of regulatory compounds do not demonstrate such a preferential effect. Because CCR3 is expressed on cells involved in inflammatory reactions, regulations of CCR3 provides an intervention site for asthma, as well as other allergic, inflammatory and hypersensitivity reactions, eosinophil-mediated diseases, and infectious disorders.